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Ad Hoc Alliance for Public Access to 911

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EX PARTE OR LATE FILED

November 19, 1997

John Cimko
Wireless Division
Federal Communications Commission
2025 M Street, NW
Washington, DC 20554

re: CC Docket 94-102
Ex Parte Communication

Dear Mr. Cimko:

Enclosed for your information is material we have delivered to the Commissioner's offices regarding wireless access to 9-1-1 issues as contained in the above referenced docket.

Sincerely,

Jonathan D. Linkous

enclosure: Letter to the Honorable William Kennard
Trott Report
Los Angeles Times editorial from November 18, 1997

cc: William Caton, Secretary

Ad Hoc Alliance for Public Access to 911

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November 19, 1997

The Honorable William Kennard
Chairman
Federal Communications Commission
1919 M Street, NW
Washington, DC 20554

Re: CC Docket No. 94-102

Dear Mr. Chairman:

Thank you for taking the time to meet with members of the Alliance last week. We appreciate your willingness to spend a few moments with us during a very busy week for you.

Following up on our discussions I have included a copy of an editorial appearing in yesterday's Los Angeles Times regarding the strongest signal and other issues we discussed. I am available for any questions you or your staff may have.

Sincerely,

Jonathan D. Linkous

enclosure

cc: Ari Fitzgerald
William Caton, Secretary

TROTT
COMMUNICATIONS GROUP

FEASIBILITY OF SELECTING THE STRONGEST COMPATIBLE CELLULAR SIGNAL

REPORT PREPARED FOR

AD HOC ALLIANCE FOR PUBLIC ACCESS TO 9-1-1

BY

TROTT COMMUNICATIONS GROUP, INC.

AUGUST 27, 1996

INTRODUCTION:

The Ad Hoc Alliance for Public Access to 9-1-1 (Alliance) has proposed that the Commission adopt a rule change that will require all wireless handsets to automatically select the strongest compatible signal when the user dials 9-1-1. Under the Alliance proposal, the process of selecting the strongest signal will automatically eliminate incompatible signals. This proposal is easily achievable and will impose a minimal burden on manufacturers compared to the benefits provided to the user.

The Commission has also asked for comment concerning ways for mobile users to complete a 9-1-1 call to any available wireless system without regard to system compatibility. In consideration of this issue, it is impractical to require wireless handset manufacturers to support a multitude of frequency bands, modulation types, signaling formats and protocols. It is equally impractical to require wireless service providers to construct systems to support a multitude of frequency bands, modulation types, signaling formats and protocols. It is even more impractical from the Commission's standpoint to re-assign spectrum in each frequency band from one wireless service provider to several competing wireless service providers to support such activities. Due to these impracticalities, this report will address 9-1-1 access only from a cellular perspective.

As a practical matter, most cellular carriers will ensure inter-system compatibility to offer roaming service in order to remain competitive in the marketplace. This will require such service providers to continue to dedicate some spectrum to analog service and handset manufacturers to produce dual-mode analog/digital equipment to accommodate the needs of the roaming subscriber. Thus, a 9-1-1 call can be switched to the strongest, compatible (analog or digital) signal.

1425 Greenway Drive, Suite 350, Irving, Texas 75038, 214/580-1911, Fax: 214/580-0641

GENERAL:

Cellular handsets are designed, manufactured and programmed in compliance with appropriate industry standards to ensure compatibility between the Mobile Station (MS) and Base Station (BS). These standards were prepared by Electronic Industries Association (EIA) and Telecommunications Industry Association (TIA) and published as EIA/TIA Standards. These Standards were reviewed and approved by the F.C.C. and incorporated into their Rules and Regulations by reference. The majority of the cellular handsets in service today are compatible with the original OST-53 analog standard (AMPS). Some are also compatible with one of the digital standards.

Unlike other wireless services, Cellular Radio Telephone Service was initially implemented using analog technology and some systems were subsequently upgraded to one of the standardized digital technologies. In order to retain compatibility with the existing subscriber base and to remain compatible with all other cellular providers in providing roamer service, cellular service providers are retaining analog service; i.e., some channels operate in the analog mode while others operate in a digital format (TDMA, CDMA). In addition, cellular subscriber units are being manufactured as dual-mode; i.e., analog and digital. As a result, most cellular handsets will continue to be compatible with current cellular systems in the analog (AMPS) mode of operation.

COMPATIBILITY ISSUES:

The nationwide deployment of digital cellular is not following a single standard as was the deployment of analog cellular. In some cities, one cellular provider is implementing TDMA in addition to analog while the other is implementing CDMA in addition to analog. In addition, deployment of digital is in isolated areas and not ubiquitous.

The Commission's REPORT AND ORDER AND FURTHER NOTICE OF PROPOSED RULEMAKING CC Docket No. 94-102 / RM-8143, specifically Paragraph 146 and related Footnote 288, ignores one of the central and material parts of the Alliance's request, that wireless handsets automatically select the strongest, **COMPATIBLE** signal when the user dials 9-1-1. Cellular handsets will not recognize or "lock-onto" a stronger signal with an incompatible format. For example, a CDMA handset looks for CDMA pilot channels which are totally different from analog control channels and a TDMA handset looks for TDMA digital control channels which are totally different from analog control channels. In addition, analog-only handsets will not recognize either TDMA or CDMA control or pilot channels. Furthermore, digital (dual-mode) phones will search for analog control channels if no compatible digital signaling is found; therefore, a dual-mode handset could, if so directed, search both format-compatible digital control or pilot channels in addition to analog control channels to determine the strongest compatible system. In light of the ubiquitous nature of the analog networks and better audio quality at this time in the deployment process, it may be preferable to place all 9-1-1 calls in the analog portion of

the wireless networks. This would also speed up the deployment of handset location due to technical limitations of digital location technology, especially CDMA. Digital technologies are intended to benefit the service providers by increasing capacity in a fixed bandwidth, and may in some future generation, provide close to equal voice quality.

REVIEW OF CURRENT PROCESS:

This review is based upon the original OST-53 compatibility specification since all analog operations are backwards compatible to support the original MS equipment. Upon application of power, the MS in a cellular system will perform the *INITIALIZATION* Task (2.6.1) and then enter the *IDLE* Task (2.6.2). The MS will remain in this *IDLE* mode of operation waiting for either a BS or user event. Periodically, the MS will re-scan the cellular environment to ensure itself of current data and accessibility to cellular service.

When the MS user places a call, the MS will exit the *IDLE* task and enter the *SYSTEM ACCESS* Task (2.6.3) with the Origination Flag set. The *SYSTEM ACCESS* Task begins with *SET ACCESS PARAMETERS* Task (2.6.3.1) which defines the basic time allowance for the MS to complete the access attempt. The *SYSTEM ACCESS* Task then continues with the *SCAN ACCESS CHANNELS* Task (2.6.3.2) which instructs the MS to examine the signal strength of ALL control channels beginning with FIRSTCHA and ending with LASTCHA looking for the strongest two channels in the group. The *INITIALIZATION* Task (2.6.1) set the FIRSTCHA and LASTCHA parameters to encompass the control channels associated with the preferred serving system, either the A-Side channel set or the B-Side channel set. Therefore, the MS will only look at the access channels for one of the available cellular service providers in the area.

Once the *SCAN ACCESS CHANNELS* Task completes, the MS is tuned to the strongest channel and the *RETRIEVE ACCESS ATTEMPTS PARAMETER* Task (2.6.3.3) is entered. This task informs the MS as to the allowable number of access attempts it will be permitted to try before access failure is declared. The MS then enters the *UPDATE OVERHEAD INFORMATION* Task (2.6.3.4) to insure compliance with the serving system registration and authentication requirements. The MS will then enter the *SEIZE REVERSE CONTROL CHANNEL* Task (2.6.3.5) where it will attempt to pass the Origination request to the serving system.

The processing of this origination call will remain with the selected serving system until call termination or until the serving system hands off the call to a neighboring system if both systems are part of a wide area seamless service agreement. Upon call termination, the MS will enter the *SERVING SYSTEM DETERMINATION* Task (2.6.3.12), which will re-scan the cellular environment before returning to the *IDLE* Task.

PROPOSED CHANGES TO THE PROCESS:

The Ad Hoc Alliance for Public Access to 9-1-1 has proposed a change to the above call process for 9-1-1 calls to be directed to a Public Safety Answering Point (PSAP) from a MS by all cellular service providers. This change is defined as a requirement for the MS to examine ALL control channels for both the A-Side and B-Side service providers to select the strongest compatible channel to process the call without regard to their preferred service provider. This change will ensure the MS user of access to the best communication path to process the emergency call. This process will also enable the locating process to more accurately report the true location of the MS when only the location of the BS cell site is being reported to the PSAP; i.e., the first five years following adoption of the new regulations. It will also reduce the probability of dropped or uncompleted calls and minimize the requirement for call-back by the PSAP.

IMPACT OF THE PROPOSAL ON THE CALL PROCESS:

Incorporating the proposed change into the MS is limited to a relatively minor software modification. The *SET ACCESS PARAMETERS* Task (2.6.3.1) is modified to examine the dialed number to determine if 9-1-1 is being called. If the user has dialed 9-1-1, this task, (2.6.3.1) is expanded to pre-load the FIRSTCHA parameter with the lowest A-Side control channel (313) and the LASTCHA parameter with the highest B-Side control channel (354) in addition to the task's normal process. As a result of this minor change, the following task, *SCAN ACCESS CHANNELS* Task (2.6.3.2) will examine **ALL** control channels for both the A-Side and B-Side when selecting the strongest compatible signal.

The remainder of the call process will proceed with **NO** changes required, and as a result, the user will always select the BEST compatible channel from BOTH cellular systems when calling 9-1-1. This change will NOT affect any other calls made by the user. The non-9-1-1 calls will be placed on the preferred system selected by the user.

CONCLUSION:

In summary, the proposal by the Alliance to "Seek the Strongest Compatible Signal" when placing a call to 9-1-1 is achievable with very little impact on the equipment manufacturer, while providing the benefit of the best possible reliability to the user and providing the closest cell site information to the PSAP. This proposed change will also benefit the PSAP by minimizing the probability of dropped or uncompleted calls requiring call-back by either the PSAP or the user.

parents—will be [illegible] legislation that President Clinton plans to sign Wednesday.

The bill will require states to terminate birth parents' custody almost instantly if a child has been seriously abused or, in lesser cases, after the child has spent 15 months in foster care and the parents haven't shaped up. While the legislation recognizes that child safety has to be paramount, it can do little to increase adoptions of abused children. (Of the 100,000 children available nationwide for adoption each year, only 20,000 find families.) So in addition to [illegible] will be [illegible] estimated number of abused and neglected children in this nation increased 149% between 1980 and 1993. There are so many more like Tamika who must first be found.

To Take Action: *Financial contributions may be sent to Keith Village through SHIELDS for Families Inc., Kathy Icenhower, Executive Director, P.O. Box 59129, Los Angeles, Calif. 90059-0313. Take clothing or toys to SHIELDS at 2620 Industry Way, Lynwood, from 8:30 a.m. to 5 p.m.*

No Holes When Lives Are at Risk

FCC should ensure that 911 calls on cell phones are put through

Many Americans bought cellular telephones for immediate access to emergency help, but it hasn't always worked out that way.

For instance, your 911 call might not go through if you're in one of your cellular service's weak transmission areas. Yes, every cell phone is equipped with the means to use either of a region's competing cellular signals, but you won't automatically be switched to the stronger one. The companies block that option out of a competitive concern that the opposition might have a better signal in an area that is important to you. And, if you are out of state, your 911 attempt might not go through because you're not a subscriber to the local network.

The Federal Communications Commission is aware of these problems. In June 1996, for example, it approved new rules that required wireless carriers to put 911 calls through whether or not the caller was a local subscriber. But the October start date for compliance now has been pushed back to the end of this month, while the cellular industry argues against the change.

We are talking about emergencies here. There should be no further delays on the new FCC rules. The commission should also force compliance and adopt a rule that allows a 911 caller to be switched automatically to the strongest signal in the area, presuming there is a competing service. That means no more signal blocking.

Next, cellular phone companies should be required to inform customers of dead or weak signal areas in their service range. That alone should spur competition on improved technology.

The industry is also concerned about losing business if there is a federal rule allowing all cell phone owners to make 911 calls even if they have not subscribed to a cellular service. Well, regular service can be prohibitively expensive and some who own cell phones for security reasons cannot afford to subscribe. If the cell phone companies are concerned about losing subscribers, they ought to think about more competitive pricing. The federal policy of permitting just two cellular companies per service region makes little sense for that very reason. It inhibits competition.

Until these remedies take place, consumers can take some basic precautions. Know your location when you dial 911 because the technology for automatic tracking is still in the test stage. You can find the weak service areas along your normal driving routes by keeping your phone on and periodically checking the signal strength. If the FCC and the cellular industry do what they should, and soon, you won't be on your own in these matters for too long. But any delay is unacceptable for what is supposed to be an emergency service.

In Exile, Wei Remains a Force

Famed Chinese dissident can lead and inspire from the U.S.

Today China's leading political dissident, Wei Jingsheng, is a free man in the United States, far from the homeland where he championed democracy despite a long and brutal imprisonment. Wei had always said that he would not leave China, but the fact is his views on political reform can be communicated better from outside his country.

Clearly the international community's continued focus on the plight of Wei, 47, helped to create the pressure to free him. His release comes just two weeks after the summit between President Clinton and Chinese President Jiang Zemin and is the most dramatic result of that meeting. Was it perhaps a quid pro quo for better and more commercial ties with the United States? Washington denies making any such deal, but Clinton did press the issue of human rights at a press conference with Jiang, saying languish in Chinese prisons simply because they hold views contrary to those of the Beijing regime. China's failure to abide by international covenants of human rights will continue to sully its stature.

Wei's freedom is a symbol, inside and outside China, of the power of endurance, democracy and free speech. He has never given up his ideals and struggle, despite high blood pressure and a chronic heart condition for which treatment was denied during most of his 17 years behind prison walls.

Wei considers himself first and foremost a Chinese patriot. With today's technology, geography need not limit him as an agent of political reform. His words can reach his countrymen through Radio Free Asia, much as they did through his famous mural/poster, "The Fifth Modernization: Democracy," which he put

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